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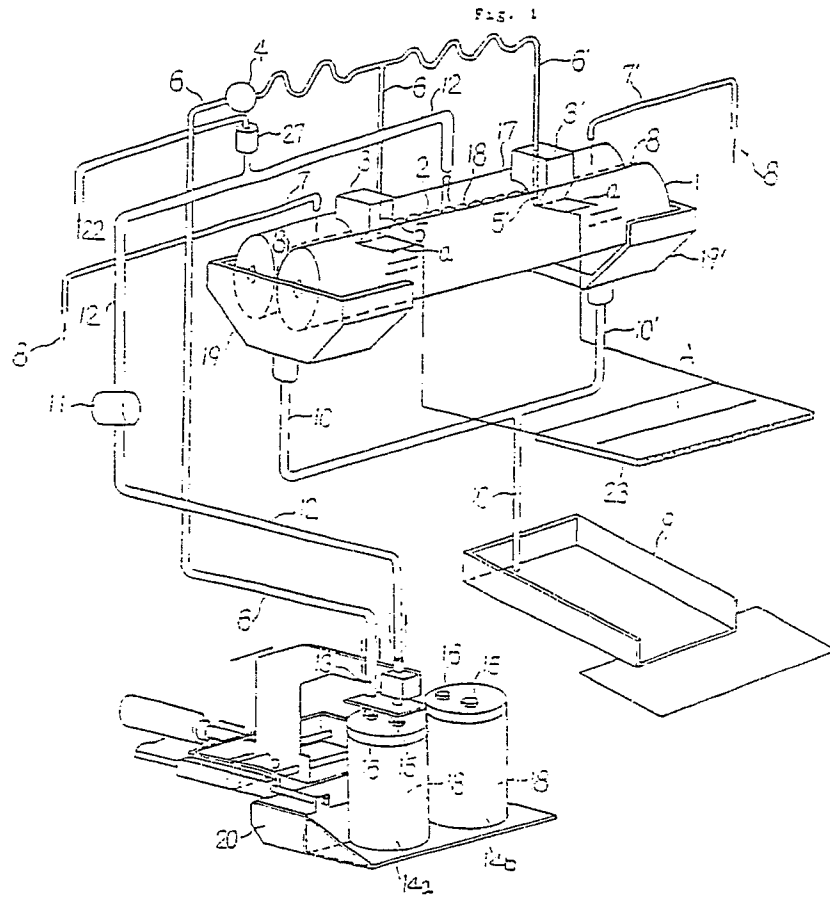
EUROPEAN PATENT APPLICATION

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27.06.90 Bulletin 90/26(71) Applicant: **MITSUBISHI JUKOGYO KABUSHIKI
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D-8000 München 80(DE)**(54) **Printing apparatus.**

(57) A printing apparatus comprising: a pair of ink rolls (1, 17) defining a nip (2) therebetween; a pair of dams (3, 3') provided in the nip and movable in the direction of the axes of the ink rolls; an ink supplying device having an ink pump (11) for supplying an ink (18) to the segment of said nip located between the dams; an ink recovery device for recovering excess quantities of the ink supplied to said nip; a washing liquid supplying device for supplying a washing liquid (22) to said ink supplying device and to said ink recovering device via said nip; and a lubricant supplying device for supplying a lubricating liquid (8) to the segments of said nip located outside said dams. In printing, the segment of the nip of the ink rolls (1,

17) between the dams (3, 3') is lubricated with the ink film and the segments of the nip of the ink rolls (1, 7) outside the dams are lubricated with the lubricating liquid. The ink or washing liquid remaining in the nip or in the ink circulation path can be forcibly and rapidly recovered and therefore the productive efficiency can be improved. Further, since the ink in the circulation path can be forcibly recovered, the ink will not be present in the ink circulation path when the next order ink is to be circulated in the path, and therefore the problem of the degradation of printing quality due to mixing of one ink and the next order ink in the circulation path can be avoided.

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
A	PATENT ABSTRACTS OF JAPAN vol. 7, no. 261 (M-257)(1406) 19 November 1983, & JP-A-58 142852 (SHINKOU) 25 August 1983, * the whole document * ----	1	B41F31/00 B41F31/20 B41F35/04
A	US-A-2887050 (SAMUEL M. LANGSTON) * the whole document * ----	1	
A	PATENT ABSTRACTS OF JAPAN vol. 9, no. 300 (M-433)(2023) 27 November 1985, & JP-A-60 139452 (ISOWA TEKKOSHO) 24 July 1985, * the whole document * ----	1	
A	US-A-4526102 (MOLINS) ----		
A	US-A-4534291 (JAMES J. SABOTA) ----		
A	US-A-4165688 (MAGNA-GRAPHS) -----		
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			B41F
Place of search THE HAGUE		Date of completion of the search 27 APRIL 1990	Examiner LONCKE J.W.
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